BEFORE THE STATE OF WASHINGTON
ENERGY FACILITY SITE EVALUATION COUNCIL

In the Matter of Application No. 99-1	In	the N	Matter	of A	App	licat	ion	No.	99-	1:
---------------------------------------	----	-------	--------	------	-----	-------	-----	-----	-----	----

SUMAS ENERGY 2 GENERATION FACILITY

EXHIBIT ____ (JL-RT)

APPLICANT'S PRE-FILED REBUTTAL TESTIMONY

WITNESS: JAMES LITCHFIELD

- Q. Please re-introduce yourself to the Council.
- A. My name is Jim Litchfield. I am a private consultant specializing in Northwest regional energy matters, and I was formerly the Director of Power Planning for the Northwest Power Planning Council.

APPLICANT'S REBUTTAL TESTIMONY JAMES LITCHFIELD - 1

[31742-0001/JL-RT.doc]

PERKINS COIE LLP
1201 Third Avenue, Suite 4800
Seattle, Washington 981013099
(206) 583-8888

- Q. What issues will you address in your rebuttal testimony?
- A. My rebuttal will primarily address "need for power" and power marketing issues. In particular, I have reviewed the testimony of Ronald Eachus and Jim Lazar, and I will be responding to portions of their testimony.

The Changing Nature of the Power Market

- Q. Mr. Eachus' testimony begins with a discussion about the evolution of the power market from one composed of highly regulated, vertically-integrated utilities to a more deregulated, less utility driven market with many independent power producers and marketers. Do you agree with his characterization of the evolution in the power markets?
- A. Yes. Mr. Eachus has provided a good overview of the national policy and regulatory changes that have forever altered the structure of the electric power industry. The national policy changes began with the passage of the Public Utility Regulatory Policies Act (PURPA) in 1978, but significantly accelerated with the passage by Congress of the National Energy Policy Act in 1992. The industry is still in the process of restructuring with regulatory changes continuing at the federal level through the Federal Energy Regulatory Commission (FERC) and at the state level through legislative and regulatory changes implemented by the legislatures and the state public utility commissions. The combination of changes in both federal and state legislation and regulatory policies has created a competitive wholesale power market that is now driven primarily by the laws of supply and demand. A key characteristic of competitive markets is to reward those that are the most efficient at producing the products transacted in the marketplace.

- Q. Mr. Eachus testified that he previously served as a Public Utility Commissioner in Oregon. Can you explain the difference between public regulatory commissions like the one in Oregon and energy siting councils like the **Washington Energy Facility Site Evaluation Council (EFSEC)?**
- A. Public utility commissions like the Oregon PUC or the Washington Utilities and Transportation Commission (WUTC) are involved in regulating the sale of electric power to retail customers served by investor owned utilities. The primary responsibility of the utility regulatory commissions is to design and implement economic regulations to ensure that consumers of electric power are charged fair and reasonable rates. Economic regulatory policies focus on the concepts of need for power, prudence, used and useful, the amount of utility investment that will be allowed in the rate base, and the allowed regulated rate of return the utility can earn on its investment. Historically, the regulator would allow private utilities to include in the rates they could charge only those investments that were judged by the regulatory agency to be prudently incurred and used and useful in serving the power needs of regulated customers.

In contrast, siting councils like EFSEC or the Oregon Energy Facility Siting Council, authorize the construction and operation of power plants. Siting councils are primarily designed to ensure that generation resources will be constructed and operated in a manner that satisfies regulatory requirements for environmental protection and that the site selected is consistent with land use policies.

JAMES LITCHFIELD - 3

APPLICANT'S REBUTTAL TESTIMONY

- Q. At pages 4-5 of his prefiled testimony, Mr. Eachus testified about Oregon's changing electricity rate-setting methodologies, electric industry restructuring and Oregon changes in the way large and small customers can buy electricity. What is your response to this testimony?
- A. I agree with Mr. Eachus' general description of the changing economic regulation of investor-owed electric utilities in Oregon and the regulated rates they will be allowed to charge. However, this discussion has nothing to do with the siting decisions before this Council.

Regional Need for Additional Generation

- Q. At page 6 of his prefiled testimony, Mr. Eachus criticizes the analysis in your testimony. He says "The logic of the applicant's case seems to be that the problems of the past year were caused by inadequate supplies. Therefore, more supply is needed. Further, if SE2 isn't able to provide new supply, then we are doomed to repeat the events of the past year. The events of the past year are instructive but there was more underlying the difficulties in the market and the run-up of prices than simply inadequate supply." How do you respond to that testimony?
- A. Mr. Eachus has misinterpreted my testimony. First, the major cause of the past year's runaway market and rolling blackouts was an <u>inadequate</u> supply of generation. This has been widely documented by many informed observers of the power market conditions leading to the unstable markets in the Western U.S. and Canada. Perhaps the best source for this analysis is the Northwest Power Planning Council (NWPPC) in its *Western Power Market Prices Summer 2000* study. As quoted in my direct

testimony, the NWPPC found a direct connection between tight supplies and price instability when they concluded:

"The Council believes that the market prices seen this summer are a tangible manifestation of the fundamental problems identified in the Council's power supply adequacy study of last winter. That is, the prices are an indicator of approaching scarcity... There were some additional factors acting this summer related to the design of the California market, but they should not obscure the basic underlying problem. Absent some action, the next similar event could result in not only high prices but also a failure of the system to meet loads."

The NWPPC's study was published in October 2000, only two months before the Northwest's power system was facing a forecast of a likely cold front moving into the region. The rapid increase in loads that this cold front would cause was predicted to stress available generation to the point where it might be necessary to blackout portions of the region to maintain system stability. In the ensuing days, a shortage of power available for sale in the region's competitive market caused wholesale prices to climb to several thousand dollars per megawatt-hour! This clearly shows the impact on competitive markets of the supply shortage that the NWPPC identified early in 2000 and confirmed in October 2000. This supply shortage was not just observed by the NWPPC but the Bonneville Power Administration found that the region was facing a 2631 MWa shortage in its White Book (December 1999) and PNUCC's Northwest Regional Forecast (Spring 2000) also found that the region is facing a 2320 MWa generation deficit. And, these predictions of a supply problem are not new because both PNUCC and BPA have been reporting substantial regional deficits of generation for most of the 1990s. The last regional power plan that I worked on for

the NWPPC was the 1991 Northwest Conservation and Electric Power Plan. The theme for that regional power plan was "A Time for Action" because the NWPPC was projecting a most-likely deficit in the year 2000 of 2000 MWa.

The supply shortage last winter was never contested by any regional planning body. In fact, each of the states in the region adopted emergency waivers and changed siting policies to encourage quick installation of emergency generation. The region responded by installing a large number of internal combustion engine driven generators that were predominantly fired with diesel fuel, even though these generators did not come any where close to current regulatory requirements for environmental emissions and siting. The three organizations that monitor regional power conditions still report energy and capacity deficits that continue to saddle the region with lower than normal levels of reliability. The underlying supply imbalance will once again cause competitive market instability whenever loads increase to approach the level of available generation. This can happen if the region's economy recovers, if the current drought continues to limit hydropower generation, if there is a cold snap that causes loads to spike, or if the region should lose a large generator due to an accident.

Nothing in my testimony claimed that SE2 is absolutely essential to avoid future supply problems in the region. My point is that we need more generation – a lot more – to return this region to historical levels of system reliability. In fact, the more plants that are sited, licensed and designed by independent developers the better! The process of siting, licensing and designing new power plants was recommended by the

PERKINS COIE LLP1201 Third Avenue, Suite 4800
Seattle, Washington 981013099

NWPPC in their first NW Power Plan in 1983 because it would allow flexibility and speed in responding to changes in load growth. Now that there is an independent power industry that is not backed by regulated power rates, there is no downside to the public of having too much generation available to be developed quickly so long as it meets environmental and siting regulatory requirements. The more efficient, less polluting facilities like SE2 that can be quickly brought on line, the less we need to rely on astronomical market prices to encourage old, less efficient and dirtier facilities to help meet load or inefficient emergency generation to be installed and operated. Again, I am not concerned about too much new state-of-the-art generation being developed because the amount of generation that is operating at any one time must exactly equal the load and no more. This means that if more generation is built than is required to meet load, not all of it can run. This forces the less efficient power plants to shut down. This is good for consumers because excess generation mitigates against high market prices that ultimately lead to rate increases necessary to cover the cost of market purchases by our utilities responsible for buying power to meet our loads. And, it is good for the environment because it will reduce the level of emissions by providing more efficient and modern power plants that will out compete older, less efficient generators to meet our loads.

- Q. Mr. Eachus testified that the high prices experienced in the past year have resulted in conservation and voluntary curtailment. How do you respond to his testimony?
- A. Mr. Eachus is pointing out that continued high prices will ultimately reduce the region's economic activity until loads are reduced to the level of available generation.

High market prices impact on utility rates, which in turn discourage energy use, but this effect lags the actual shortage of supply that cause high market prices by several months. In fact, many utilities are still in the process of asking for approvals from economic regulators to increase regulated rates to recover the costs of the power the utility purchased last winter to meet its customers demands at that time.

Second, while it is true that the extremely high rate increases that we are now seeing encouraged consumers to reduce electricity use these reductions are of two types. Some of the current load reduction will be "conservation" which the Northwest Power Act defines as providing the same energy service with less electric power input. An example is installing high efficiency light bulbs that use far less power to replace incandescent lights but produce the same amount of light. However, most of the recent load reduction is the result of curtailment not conservation. In response to rapid rate increases many consumers simply do without power to reduce their power bills. This strategy to reduce power bills is called curtailment and it has resulted in many of the region's energy sensitive industries deciding to lay people off and shut down operations. In this context, voluntary curtailment results in job losses that ripple through the economy.

Finally, it should be noted that none of the region's energy leaders or planners believes that conservation alone can meet our energy needs. During the first round of EFSEC hearings, Dick Watson testified that there is a significant amount of conservation available but he agreed and that, in addition to this conservation, the NWPPC has called for more power generation to be developed to restore adequate

> PERKINS COIE LLP 1201 Third Avenue, Suite 4800

Seattle, Washington 98101-

JAMES LITCHFIELD - 8

APPLICANT'S REBUTTAL TESTIMONY

levels of reliability to this region's power system and to avoid extreme market price excursions like those seen since the summer of 2000.

- Q. Mr. Eachus also seems to think that last year's events won't repeat themselves because electricity rates have gone up, and new electricity rate structures provide consumers better "signals" of supply shortages. How do you respond to this testimony?
- I agree with Mr. Eachus that if prices go up people will use less power. As prices go A. up, people will also want to generate more power, if they are permitted to build new generating resources. Together these principles drive competitive markets to balance supply and demand. It is also true that different price structures should be designed and implemented to encourage power use at different times of day and some utilities and economic regulators are working on implementing these sorts of structures. However, real time pricing is far from a reality in this region. Furthermore, even if prices are allowed to follow competitive market prices, the region will reach a point where additional power supplies will be needed or prices will go nearly infinite. If loads cannot be reduced to the level of generation in response to prices, then rolling blackouts will be required to bring loads down to available generation levels.
- 0. Mr. Eachus also testified that last year's dramatic electricity price increases were unusual because they were caused in part by natural gas price increases, and natural gas prices have now returned to lower levels. How do you respond to this testimony?

- A I agree with Mr. Eachus that part of last year's increase was related to natural gas availability and price. Because most new generation is fired by natural gas the prices of gas and electricity are linked. The result is that it will be difficult to determine which energy commodity actually caused a price run up because the price of both energy commodities will tend to move together. Even recognizing the linkage between natural gas and electricity, it is clear that the supply shortage that began in the summer of 2000 caused electricity prices to increase far faster and much higher than could be justified by increases in the cost of gas. Inadequate supply of electric power combined with the utilities' obligation to serve all of the needs of the utility's customers, no matter how high the market price, drives utility power managers to bid up market prices to unheard of levels. If more generation had been available so that utilities believed that they could meet their obligations, then prices would have peaked at a far lower level than those seen in last winter's competitive markets.
- Q. Mr. Eachus also testified that the flawed market design in California contributed to the problem. How do you respond?
- A. I have no doubt that the flawed market design in California made matters far worse, not only in California but also here in the Northwest. But even Mr. Eachus acknowledges that it was the market design "combined with tight supplies" that caused the problem. The role of a shortage of generation in this region is clearly documented in the studies referenced in my direct testimony. The NWPPC found the extreme market prices were a direct result of the utilities not being able to find sufficient supplies of generation to meet forecasted loads. The flawed California market is an interesting study in what not to do as states try to deregulate electric

power utilities but it offers little to illustrate the policies this region should follow to prevent future supply shortages that lead to extreme market fluctuations. The Northwest needs to focus on our own problems that continue to be documented in regional planning studies by the NWPPC, the PNUCC and the BPA.

- Q. Finally, Mr. Eachus claims the events of last year will not repeat themselves because there is a lot of new generation planned. Does that mean the Council should not permit the SE2 project?
- A. No. Although the NWPPC's analysis has looked at the economics of developing resources, they are not developers and they have no information on the financial and economic viability of specific generation resources. It is impossible to predict exactly which proposed generators will actually move into construction and of those which ones will actually succeed and produce electric power that is competitively priced. The bottom line is that the more projects that have received the necessary regulatory approvals and are ready to begin construction, the quicker a supply problem can be rectified. This will limit the amount and extent of price spikes in the competitive market and reduce the economic impacts on the state of rapid rate increases and the resulting economic dislocations.

Furthermore, a lot of the new generation that the NWPPC has identified that has come on line since the energy shortages last winter is either emergency or peaking generation. This type of generation is much less efficient and far more polluting than SE2. Yet because of the energy supply crisis large amounts of this type of generation was installed. If there were a queue of efficient generators like SE2 that were ready to

move into construction, they would be able to come on line in a relatively short time period. This would allow the less efficient emergency facilities to be displaced and would help to calm competitive power markets.

- Q. Mr. Eachus' bottom line seems to be that the region does not need this particular plant the SE2 power plant. How do you respond to that?
- A. Based on the studies that I have reviewed of this region's future power needs, there is a consensus that this region continues to need a significant amount of new generation. Opponents of each and every proposed or planned project could say "we don't need this one" because others are also being proposed. That's fundamentally a NIMBY argument we know we need generation somewhere; we just don't need it here. However, the function of siting councils should be to ensure that any permitted power plant meet unambiguous and consistent requirements for impacts on land, water and air resources. Once these siting requirements are met, the more power plants that have received necessary siting approvals the better because this will allow a prompt supply increase if a shortage of power occurs.

This is a basic tenet of the first NWPPC Power Plan that called on the region to develop resource "options." The concept was that the region would be best served by a large number of generating resources that had secured the necessary siting, licensing and design approvals so that they could be constructed with the minimum lead time. This would reduce the risk to the region's ratepayers of either over-building or underbuilding the amount of generation needed. Today, independent power developers are seeking to build new generation that will not be economically protected by regulated

rates so it is in the best interests of consumers to have a large number of qualified resources capable of being developed with the shortest possible lead time. This will maximize flexibility to meet future loads while not putting ratepayers at risk if too many resources are developed. Again, only the amount of generation needed to meet load can operate at any one time so a surplus of generation will result in idling the least efficient generators and downward pressure on market prices for power.

Build Window

- Q. In his prefiled testimony, Jim Lazar raises concerns about the length of the "build window" in the Site Certification Agreement, suggesting that the existence of outstanding permits may discourage additional generation from being developed. Do you agree with his concern?
- A. No. Market conditions determine whether independent power producers build new generation. Independent project developers make their own assessments about the ability to compete in the marketplace, and they can assess the likelihood of other projects being constructed. Historically, outstanding permits have not discouraged project development. On the contrary, outstanding permits have allowed projects to be built relatively quickly when justified by market demand. The Chehalis and Satsop projects are examples of projects in Washington State that are currently moving toward completion much faster than they would be able to if they had not been permitted in advance with lengthy build windows. At the same time, the existence of the permits for the Creston site has had no impact on the plans of resource developers in this region.

From the consumers' standpoint, the best thing siting councils can do is permit as many environmentally acceptable independent power plants as possible. This will create an inventory of projects that can be completed quickly should loads grow and a deficit of generation occurs which would cause competitive market prices to increase rapidly. Having a number of power plants ready for development will ease the barriers to entry into the market. This will facilitate rapid supply-side responses that will help mitigate the market price excursions that result during a shortage of supply, like that seen last winter here in the Northwest. This will help to reduce the duration and level of high competitive market prices and increase reliability, which will benefit all power customers and the economy in Washington State

- Q. Are there other benefits to Washington of having an inventory of generating resources that are permitted and ready to be constructed when the economy recovers and loads again increase?
- A. Yes, there are substantial environmental benefits when new, state-of-the-art power plants are constructed. These benefits occur due to the fact that new generators must compete with all other operating power plants for a place in the competitive power market. This competition will force older less efficient plants that are more expensive and produce more pollution to reduce operations and to close down altogether if they cannot compete with the new power plants. The availability of an inventory of power plants that are approved to be developed will reduce barriers to entry into the market and speed the addition of new power supplies when market conditions permit. This

will reduce any shortage of supply and reduce the time period when market prices are abnormally high thereby providing a more efficient power market.

Marketing of Power

- Q. In his prefiled testimony, Mr. Eachus makes two recommendations about "conditions that can increase the likelihood of direct benefits to the ratepayers and citizens of Washington." Before I ask you about them, do you think the goal of increasing direct benefits to Washington residents is appropriate?
- A. Washington State is not an isolated entity in the world of electric power. Washington is a political jurisdiction in an integrated electrical grid that spans the entire Western U.S. and the two Western Provinces of Canada. This electrical system operates by the laws of physics and is motivated by the economic incentives in competitive power markets. The overall rules that define economic relationships of the market players are established through economic regulation at both the federal and state levels. In this highly integrated network, it is impossible for any one state to disconnect itself from the others.

The interconnection of the west continues to provide substantial economic and environmental benefits through reduced reserve margins to maintain adequate levels of system reliability and through economic dispatch to insure that the most efficient power plants are operated to meet electric demands in the entire area. Again, an isolationist approach to electric power would increase the cost of providing electric service, require the development of more power plants that would only be operated infrequently, and increase environmental emissions because the type of power plant

APPLICANT'S REBUTTAL TESTIMONY JAMES LITCHFIELD - 15 used for peaking and backup will be far less efficient than plants like SE2. This kind of isolationist thinking is less efficient for trading any commodity. In the case of electric power, it has been shown to be an expensive and unreliable strategy that increases environmental impacts.

The focus in this proceeding should not be on trying to devise some way to trap the electric energy in Washington, but rather on the requirements and standards that will properly balance the environmental impacts of new generation with the economic and reliability interests of the State. Whether or not the electricity is sold in Washington, increasing electric generating capacity in Washington will benefit the state by the increasing reliability of the regional electric system, stabilizing electricity prices, and supporting a more vibrant and robust State economy that produces adequate jobs, economic activity and a tax base to support needed social services.

- Q. The first condition Mr. Eachus recommends is "a 'must offer' condition in which the plant is required to offer into the regional spot market any output that is not already scheduled for use." What is your response to this proposal?
- A. Mr. Eachus has an impressive background in economic regulation. It is this background that leads him to recommend a regulatory intervention into the kinds and types of transactions that SE2 would be permitted to engage in as a condition of a site permit. I don't believe that EFSEC has the statutory authority to implement Mr. Eachus' recommendation and it seems inappropriate for a siting council to condition a site permit based on a restricted point of sale. Either the proposed plant at the

proposed site meets with the statutory requirements for impacts on land, water and air resources of Washington or it does not.

Further, restricting sale of the output to the Mid-Columbia trading hub does nothing to insure that the power will remain there. The Mid-Columbia trading hub is just a contractual point where transactions are assumed to occur to facilitate writing contracts. Buyers and sellers agree to assume that the power goes to the central part of Washington before it is then delivered to another location where it might be consumed or it could be resold again and again as the power moves to the place where it is needed and ultimately consumed. In fact, large amounts of contracts for power can be transacted in the Mid-Columbia market while actual power flows in the area of the Mid-Columbia electrical bus are very low.

If Mr. Eachus is making the "must offer" recommendation to insure that SE2 does not engage in illegal withholding of generation in an attempt to manipulate market prices at the Mid-Columbia market, then I believe that this concern is already adequately dealt with in FERC's regulations. There has been a significant investigation into allegations that generation was withheld in California last summer and FERC has imposed penalties on those parties that it found had engaged in any withholding of available generation. Again, I don't believe that EFSEC is the appropriate regulatory agency to require this form of economic regulation nor does EFSEC have the regulatory enforcement functions to implement Mr. Eachus' recommendation.

- Q. The second condition is "requiring the plant to make power available to any control area in Washington State when that control area determines it has been unable to acquire adequate supplies in the market [and] it will have an inadequate supply to meet demand." What is your response to this proposal?
- A. Here again Mr. Eachus is recommending that EFSEC range out beyond its statutory authority and enter into economic regulation in an attempt to direct power to a particular control area. The physics of electric energy will not allow one control area to be deficit while the interconnected control areas are surplus. It is every control area operator's responsibility to own or buy from the market sufficient resources to meet control area loads. It is this obligation to serve the loads that drives control area operators to bid up power prices very quickly when there is a supply shortage. It is not possible to increase rates fast enough in real time to reduce demand so the only way to try to reach balance in the power markets is through paying consumers to reduce loads and increasing the price for power until all possible generation is online.

Directing a new power plant to stand ready to meet the needs of a deficit control area makes no sense in the context of a competitive market. Mr. Eachus has not explained who would police this proposed requirement and determine if a control area was in fact deficit and how changes in loads would be handled that cause a control area to move from deficit to surplus and need to resell the power that they purchased to meet a forecasted load that failed to materialize. This would be a complex regulatory undertaking that would need to respond to changing loads and market conditions in real time and no regulatory body currently has authority to perform this function. I believe that this proposal, if implemented, would lead to additional market distortions

JAMES LITCHFIELD - 18

APPLICANT'S REBUTTAL TESTIMONY

and gaming as control areas would forecast deficit conditions only to resell the power back to the market at the market clearing price when forecasted load failed to occur.

Finally, Mr. Eachus does not make clear whether the condition he is proposing would apply only to "surplus" SE2 power or whether it applies to all SE2 power. Surely, SE2 should not be required to breach other power sale contracts in order to provide power to a control area with inadequate supply.

- Q. In his prefiled testimony, Jim Lazar also had a suggestion about power marketing. He recommends that EFSEC require SE2 "to commit a minimum of 60% of its output to electric companies . . . , to electric service providers who sell electricity at retail to end-users in the state such as in-state industries which buy electricity in the wholesale market . . . , or to Puget Sound Energy's open access customers or other customers with retail access. What is your response to this recommendation?
- A. Mr. Lazar, like Mr. Eachus, is recommending that EFSEC extend its authority into the realm of economic regulation. There currently are effective regulators of private utilities at both the state and federal levels. In the case of the federal regulator, FERC has been very clear that its policy goal is to create an efficient, deregulated wholesale power market. In this respect, FERC is moving to remove barriers to entry into the market and, through the formation of Regional Transmission Organizations (RTOs), to ensure that there is an open highway for commerce to move competitively generated electric power as a commodity. Restricting the sale of electric energy from a new independent power plant to only a subset of potential buyers is counter to

FERC's policy and its regulatory requirements. It is would constrain the operation of the competitive market and reduce the economic value of the power.

Even worse, if Mr. Lazar's recommendations were followed, there would still be no assurance that the power sold to a Washington entity listed by Mr. Lazar will remain in Washington. All power utilities and large power consumers that have access to the market are capable of buying and selling power at any time when it is in their interest. A recent example was provided by the Direct Service Industries (DSIs) that are served by BPA. They had contracts with BPA that allowed them to have BPA remarket the power for them should they not need it for producing aluminum. Last winter, when the price of power increased due to the supply shortage, the DSIs chose to shutdown aluminum production and re-market the BPA power because the power was far more valuable if it was sold into the competitive power market than if it were used to make aluminum and then sold into aluminum markets. The economically efficient strategy for the DSIs, even though it was politically controversial, was to re-market the low cost federal power at a substantial economic gain. The influence of a competitive wholesale power market permeates the decisions of all power market players in Washington. Placing a restriction on the ability to market power of only one player as Mr. Lazar proposes will not change the behavior of other market players that purchase the power from SE2. It is unfair and poor public policy to restrict SE2's ability to market its power while at the same time not putting similar restrictions on the sale of power by all other utilities, power marketers, and retail customers with access to the competitive market.

END OF TESTIMONY

PERKINS COIE LLP1201 Third Avenue, Suite 4800
Seattle, Washington 981013099
(206) 583-8888